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Scancell Holdings plc
("Scancell" or the "Company")

Scancell announces selection of COVID-19 vaccine candidate, SN14

SN14 offers several potential advantages over currently approved and late-stage COVID-19 vaccines

Scancell Holdings plc, (AIM:SCLP), the developer of novel immunotherapies is pleased to announce that they have selected their COVID-19 vaccine candidate, SN14, for further development and clinical trials. SN14 targets both the SARS-CoV-2 nucleocapsid (N) protein and the key receptor-binding domain (RBD) of the spike (S) protein, and is based on a modification of Scancell's ImmunoBody® DNA vaccine technology.

Fifteen vaccine candidates containing different S and N components combined with a variety of targeting technologies were evaluated for the best T cell and antibody responses. SN14 reproducibly elicited high-titre anti-S virus neutralising antibodies (VNAbs) together with high avidity T cells against both the S and N proteins. SN14 also incorporates Scancell's AvidiMab™ technology to further enhance this immune response demonstrating the broad potential of this platform technology to generate improved vaccines for both infectious diseases and cancer.

SN14 is a second generation vaccine which offers several potential advantages over currently approved and late-stage COVID-19 vaccines:

- Not only does SN14 target the S protein to induce VNAbs that prevent the COVID-19 virus from entering cells but also induces strong T cell responses to both the S and N proteins to destroy virally-infected cells and prevent further viral replication.
- As the N protein is well-conserved between coronaviruses, the SN14 vaccine has the potential to be effective against any variant or new strain of coronavirus in addition to the current COVID-19 strain.
- Use of the AvidiMab™ technology increases the potency of the T cell response which, in turn, should lead to long-term protection and immunological memory.
- DNA vaccines are exceptionally stable, do not require ultra-low temperature storage and are manufactured using relatively simple processes.

As reported in October 2020, Scancell entered into a collaboration with Cobra Biologics, part of the Cognate BioServices family, to conduct preliminary work leading to the manufacture of SN14 with the goal of starting a Phase 1 COVIDITY clinical trial as soon as possible during 2021. The project is funded by an Innovate UK grant awarded to a consortium between Scancell, the University of Nottingham and Trent University.

Professor Lindy Durrant, Chief Scientific Officer of Scancell commented:

"We are very excited about our SN14 second generation COVID-19 vaccine which could have significant advantages over first generation vaccines, either on its own or in combination with other vaccines to broaden and strengthen the immune response for long term protection."

For Further Information:

Scancell Holdings plc
Dr John Chiplin, Chairman +44 (0) 20 3727 1000
Dr Cliff Holloway, CEO

Panmure Gordon (UK) Limited
(Nominated Adviser and Corporate broker)
Freddy Crossley/Emma Earl +44 (0) 20 7886 2500

FTI Consulting +44 (0) 20 3727 1000
Simon Conway/Natalie Garland-Collins

About Scancell

Scancell is developing novel immunotherapies for the treatment of cancer based on its technology platforms, ImmunoBody®, Moditope® and AvidiMab™, with four products in multiple cancer indications and development of a vaccine for COVID-19.

ImmunoBody® vaccines target dendritic cells and stimulate both CD4 and CD8 T cells with the ability to identify, target and eliminate cancer cells. These cancer vaccines have the potential to be used as monotherapy or in combination with checkpoint inhibitors and other agents. The Directors believe that this platform has the potential to enhance tumour destruction, prevent disease recurrence and extend survival.

- SCIB1, Scancell's lead product, is being developed for the treatment of metastatic melanoma. In a Phase 1/2 clinical trial, survival with SCIB1 treatment appears superior to historical survival rates, with 14 of 16 resected patients receiving 2-4 mg doses of SCIB1 surviving for more than five years (as reported in February 2018).
- SCIB2 is being developed for the treatment of non-small cell lung cancer and other solid tumours. Scancell has entered into a clinical development partnership with Cancer Research UK (CRUK) for SCIB2.

DNA vaccine against COVID-19: As research data emerges, it is becoming increasingly clear that the induction of potent and activated T cells may play a critical role in the development of long-term immunity and clearance of virus-infected cells. Initial research is underway and Scancell anticipates initiating a Phase 1 clinical trial known as COVIDITY during 2021.

Moditope® represents a completely new class of potent and selective immunotherapy agents based on stress-induced post-translational modifications (siPTM). Examples of such modifications are citrullination, an enzyme-based conversion of arginine to citrulline, and homocitrullination (or carbamylation), in which lysine residues are converted to homocitrulline. Expression of peptides containing these modifications have been demonstrated to induce potent CD4 cytotoxic T-cells to eliminate cancer. Previous pre-clinical studies have demonstrated that conjugation of these Moditope® peptides to Amplivant® enhances anti-tumour immune responses 10-100 fold and resulted in highly efficient tumour eradication, including protection against tumour recurrence.

- Modi-1 consists of two citrullinated vimentin peptides and one citrullinated enolase peptide each conjugated to Amplivant®. Vimentin and enolase peptides are highly expressed in triple negative breast, ovarian, head and neck, and renal cancer, as well as many other cancers. The Company continues to progress the Modi-1 Phase 1/2 clinical trial for regulatory submission to start the planned clinical study in the UK in the first half of 2021.

AvidiMab™ has broad potential to increase the avidity or potency of any therapeutic monoclonal antibody (mAb) including those being developed for autoimmune diseases, as well as cancer. Scancell's development pipeline includes mAbs against specific tumour-associated glycans (TaGs) with superior affinity and selectivity profiles, that have now been further engineered using the Company's AvidiMab™ technology; this confers the Scancell anti-TaG mAbs with the ability to directly kill tumour cells. The Company has entered into three non-exclusive research agreements with leading antibody technology companies to evaluate the Company's anti-TaG mAbs including those enhanced with the AvidiMab™ technology.